

SUMMARY

The present invention relates to an optical communication network and to a network element for use in such a network. The network element comprises a plurality of receivers (70-76) for receiving optical communication signals, a plurality of transmitters (54-62, 82-86) for transmitting optical communication signals, and a plurality of network connections, each network connection having an individual signal impairment characteristic. The pluralities of receivers (70-76) and transmitters (54-62, 82-86) are adapted to employ a plurality of different modulation schemes (64, 66). Furthermore, the pluralities of receivers (70-76) and transmitters (54-62, 82-86) are assigned to the network connections as a function of the individual signal impairment characteristics.